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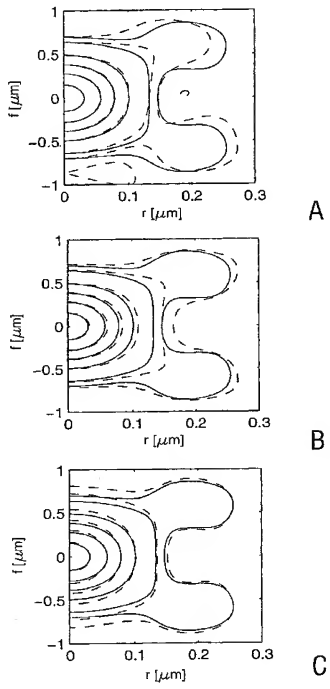
(54) Title: DETERMINING IMAGE BLUR IN AN IMAGING SYSTEM



(57) Abstract: The invention relates to a method of determining a parameter relating to image blur in an imaging system (IS) comprising the step of illuminating an object having a test pattern (MTP) by means of the imaging system (IS), thereby forming an image of the test pattern,. The test pattern (MTP) has a size smaller than the resolution of the imaging system (IS), which makes the image of the test pattern independent of illuminator aberrations. The test pattern (MTP) is an isolated pattern, which causes the image to be free of optical proximity effects. The image is blurred due to stochastic fluctuations in the imaging system and/or in the detector detecting the blurred image. The parameter relating to the image blur is determined from a parameter relating to the shape of the blurred image. According to the invention, resist diffusion and/or focus noise may be characterized. In the method of designing a mask, the parameter relating to the image blur due to diffusion in the resist is taken into account. The computer program according to the invention is able to execute the step of determining the parameter relating to the image blur from a parameter relating to a shape of the blurred image.

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